

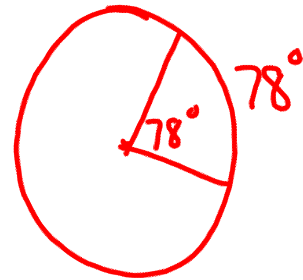
05/15/14 Agenda:

- **Remediation Packet for Unit 11 is on my web site**
 - **Any retake or makeup needs to be completed by 5/23**
- Review Homework
 - Worksheet 3 - Inscribed Angles & Arcs
- Section 10.5 - Other Angle Relationships
- Homework
 - Worksheet 4 - Angles Formed by Chords, Secants, & Tangents

Summary of Angles

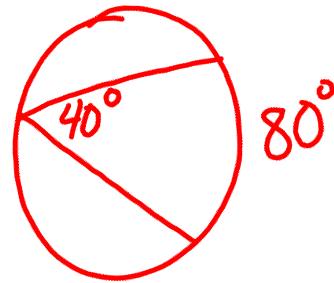
Vertex is Center:

$$m\text{Angle} = m\text{Arc}$$



Vertex is on Circle:

$$m\text{Angle} = \text{half } m\text{Arc}$$



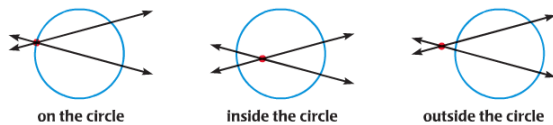
Section 10.5 - More Angles of Circles
Target 12E

May 15, 2014

Goal:

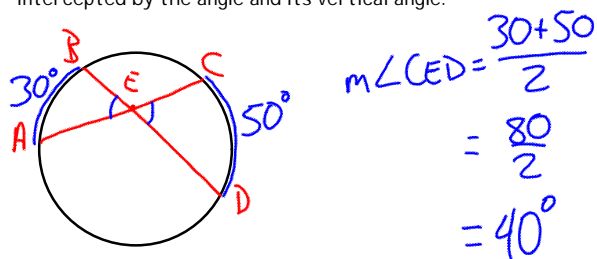
Find the measures of angles formed by secants, tangents, and chords.

INTERSECTING LINES AND CIRCLES If two lines intersect a circle, there are three places where the lines can intersect.



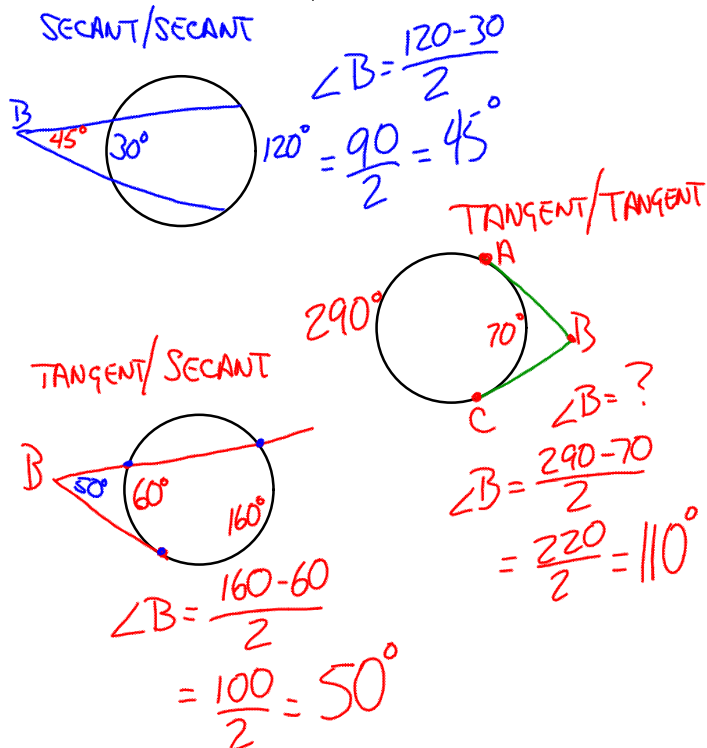
1.) Inside Angle Theorem:

If two chords intersect *inside* a circle, then the measure of each angle is one half the **sum** of the measures of the arcs intercepted by the angle and its vertical angle.



2.) Outside Angle Theorem:

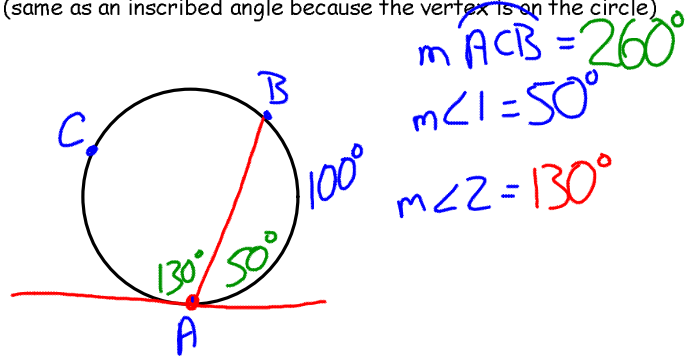
If tangents or secants intersect *outside* a circle, then the measure of the angle formed is one half the **difference** of the measures of the intercepted arcs.



3.) Tangent-Chord Theorem:

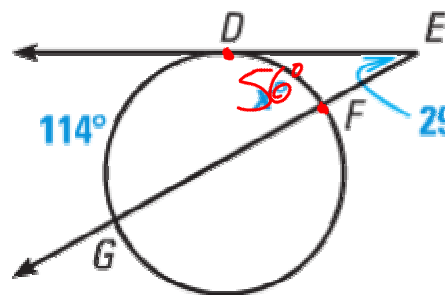
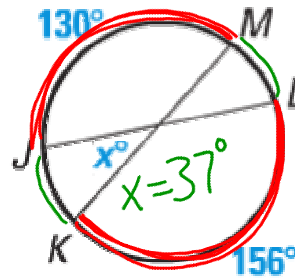
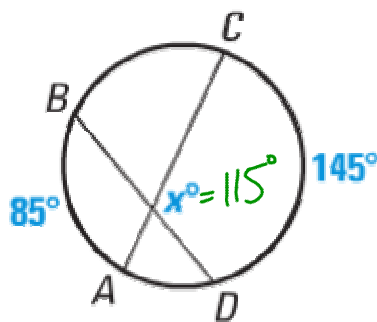
If a tangent and a chord intersect at a point **on** a circle, then the measure of each angle formed is one half the measure of its intercepted arc.

(same as an inscribed angle because the vertex is on the circle)



Try these:

$$m\angle X = \frac{\text{SUM OF ARCS}}{2}$$



$$29 = \frac{114 - x}{2}$$

$$58 = 114 - x$$

$$56 = x$$

Summary of Angles

Vertex is Center: $m\text{Angle} = m\text{Arc}$

Vertex is on Circle: $m\text{Angle} = \text{half } m\text{Arc}$

Vertex is inside Circle: $m\text{Angle} = \text{half the sum of Arcs}$

Vertex is outside Circle: $m\text{Angle} = \text{half the difference of Arcs}$